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REMARKS

The specification has been amended to include headings for the drawings and detailed description sections of the application. No new matter was added. Claims 7-21 are pending in the present application.

Claims 7-12 and 16-19 were rejected under 35 U.S.C. §102(e) as being anticipated by Roe (U.S. Patent Number 5,607,760). Applicants respectfully traverse this rejection.

The present invention is directed to an absorbent article wherein at least the sealing edge or sealing edges are treated with a non-adhesive sealing medium which, in use, at least partly fills out any through-penetrating pores which are formed between the sealing edge or edges and an abutment part of a wearer's skin, and/or which, when the article is donned, smears the abutment part of a wearer's skin and thereby increases a liquid-skin wetting angle. This invention provides an absorbent article with improved sealing against the wearer's skin.

Roe discloses a disposable absorbent article having a lotion coating on the outer surface of the topsheet that is semisolid or solid at ambient temperatures (i.e., at 20°C.) and is adapted to be transferred to the wearer's skin, where it acts to reduce the adherence of BM to the skin of the wearer, thereby improving the ease of BM clean up and enhancing skin softness. *Column 3, lines 1-9*. The lotion compositions of the present invention comprise: (1) an emollient to improve the lubricity of the solid polyol polyester(s); (2) a solid polyol polyester(s) immobilizing agent; (3) optionally a hydrophilic surfactant(s); and (4) other optional components. *Column 10, lines 34-38*. Emollients useful in the present invention can be petroleum-based, fatty acid ester type, alkyl ethoxylate type, fatty acid ester ethoxylates, fatty alcohol type, polysiloxane type, or mixtures of these emollients. Suitable petroleum-based emollients include those hydrocarbons, or mixtures of hydrocarbons, having chain lengths of from 16 to 32 carbon atoms. Petroleum based hydrocarbons having these chain lengths include mineral oil (also known as "liquid petrolatum") and petrolatum (also known as "mineral wax," "petroleum jelly" and "mineral jelly"). Mineral oil usually refers to less viscous mixtures of hydrocarbons having from 16 to 20 carbon atoms. Petrolatum usually

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refers to more viscous mixtures of hydrocarbons having from 16 to 32 carbon atoms. Petrolatum and mineral oil are particularly preferred emollients for lotion compositions of the present invention. *Column 15, lines 47-61*. The lotion may be applied to any part of the diaper wherein it can come in contact with the wearer's skin. *Column 25, lines 26-28*.

Roe is specifically directed to an absorbent article which has a topsheet of hydrophilic material to promote rapid transfer of liquids through the topsheet. *Column 7, line 51-53; column 21, lines 40-42*. Roe further states:

Similarly, it is important that the lotion composition also be sufficiently wettable to ensure that liquids will transfer through the topsheet more rapidly. This diminishes the likelihood that body exudates will flow off the lotion coating rather than being drawn through the topsheet and being absorbed by the absorbent core. Depending upon the particular immobilizing agent used in the lotion composition of the present invention, an additional hydrophilic surfactant (or a mixture of hydrophilic surfactants) may, or may not, be required to improve wettability.... Similarly, a hydrophobic emollient such as petrolatum will require the addition of a hydrophilic surfactant.

Column 21, lines 42-61. Thus, Roe requires that the lotion composition be hydrophilic in order to ensure that the topsheet or other portion of the absorbent article treated remains hydrophilic.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. V. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The rejected claims are directed to an absorbent article wherein at least the sealing edge or sealing edges are treated with a non-adhesive sealing medium which, in use, at least partly fills out any through-penetrating pores which are formed between the sealing edge or edges and an abutment part of a wearer's skin, and/or which, when the article is donned, smears the abutment part of a wearer's skin and thereby increases a liquid-skin wetting angle. The purpose of the claimed sealing medium is to provide improved sealing of the absorbent article against the wearer's skin to prevent leakage by increasing the liquid-skin wetting angle, which results in greater hydrophobicity of the skin. Roe, to the contrary, does not disclose increasing a liquid-skin wetting angle to prevent leakage but rather specifically requires the topsheet and lotion be hydrophilic to promote transfer of liquids.

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The present invention provides an absorbent article with improved sealing against the wearer's skin. This improved sealing is obtained by increasing the liquid-skin wetting angle. As noted on page 13, lines 16-19, since the skin is hydrophilic and has a mean wetting angle of about 74°, it is suitable for the sealing medium to at least increase this wetting angle to about 90°, so that the skin will be hydrophobic. Page 14 describes possible sealing mediums which may be used. These include ointments that include fat/oil of animal, vegetable or petrochemical origin and water/oil emulsions, which are hydrophobic. Further description of the advantages of the claimed invention and the increase in wetting angle may be found in the examples. For example, page 16 illustrates the change in wetting angle which obtains a hydrophobic wetting angle in distinction to the normal skin. *Page 16, lines 12-24.*

Roe requires and only teaches a hydrophilic lotion which is used on a hydrophilic topsheet (or other portion of the absorbent article). Roe does not teach a sealing medium which is typically hydrophobic and which provides an increase in liquid-skin wetting angle. In view of the lack of disclosure in Roe of each and every element of the claimed invention, Applicants respectfully request that the anticipation rejection over Roe be withdrawn.

Claims 9-12 and 13-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Roe. Applicants respectfully traverse this rejection.

As described above, Roe is directed to an absorbent article which has a topsheet coated with a lotion composition. The topsheet and the lotion composition are to be hydrophilic to promote rapid transfer of liquids through the topsheet. Although Roe mentions that the lotion composition may be applied to any part of the diaper wherein it can come in contact with the wearer's skin, no difference in the properties or desired effect is taught besides preventing the adherence of BM to the wearer's skin. A sealing effect as obtained by the claimed invention is not suggested or taught. Rather, Roe teaches a material which would have exactly the opposite effect from that obtained by the claimed invention, since Roe teaches the use of hydrophilic materials to allow the transfer of liquids, not the use of a sealing medium to prevent leaks. Thus, Roe teaches away from the invention of claims 9-12 and 13-15.

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The Office Action points out the teachings in Roe concerning the use of petrolatum. However, Roe makes clear that, although petrolatum may be used in the lotion taught therein, if such a material is used, the addition of a hydrophilic surfactant is required to obtain a sufficiently wettable lotion composition. *Column 21, lines 40-61*. Thus, petrolatum is not suggested for use alone and must be used in combination with other ingredients in the lotion composition of Roe to provide the desired hydrophilic qualities.

The Background of the Invention of Roe specifically describes the problem to be solved by the invention of Roe as preventing the adherence of BM to the skin and discusses other solutions previously tried. *Column 1, line 22 - column 2, line 54*. In the background section, Roe sets forth problems with previous hydrophobic materials used in absorbent products. According to Roe, among other problems, these materials result in slow transfer of urine to underlying absorbent cores. *Column 2, lines 39-45*. This problem is remedied by the hydrophilic topsheet and lotion combination of Roe. Roe is not concerned with leakage issues. Thus, the teachings of Roe are directly opposite to the teachings of the present application wherein the desired property from the use of a sealing medium such as petrolatum is the increase in liquid-skin wetting angle which is related to increasing hydrophobicity, not hydrophilicity. The background and other teachings of Roe specifically guide one of skill in the art away from the use of such a sealing medium.

In view of the complete lack of disclosure in Roe of an absorbent article with a sealing medium as claimed and the teachings of Roe away from the use of a sealing medium as claimed, Applicants respectfully request that this obviousness rejection be withdrawn.

Claims 20-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Roe in further view of Sivilich (U.S. Patent Number 5,669,902). Applicants respectfully traverse this rejection.

Claim 20 is directed to an absorbent article that includes longitudinally extending side extremities, an absorbent body disposed between a liquid-impermeable bottom sheet, which is intended to lie distal from a wearer in use, and a liquid-permeable upper sheet, which is

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intended to lie proximal to a wearer, and above the upper sheet, an essentially liquid-impermeable top sheet which is intended to lie against a wearer, and which includes elastic for shaping the article to a wearer's body, and includes apertures intended to lie in register with an anus and a urethra orifice of a wearer, around which apertures elastically puckered sealing edges are disposed in the top sheet; wherein at least said sealing edges are treated with a non-adhesive sealing medium which, in use, at least partly fills out any through-penetrating pores which may be formed between said sealing edges and an abutment part of a wearer's skin, and/or which, when the article is donned, smears said abutment skin part and thereby increases a liquid-skin wetting angle.

According to the Office Action, the difference between Roe¹ and claim 20 is the provision that the absorbent article include an essentially liquid-impermeable top sheet which is intended to lie against a wearer and which includes elastic for shaping the article to the wearer's body, and includes apertures intended to lie in register with an anus and a urethra orifice of a wearer, around which apertures elastically puckered sealing edges are disposed in the top sheet. This difference is allegedly remedied by the addition of Sivilich.

First, as noted above, Roe teaches the use of hydrophilic materials to promote transfer of liquids in absorbent articles and does not teach or suggest an absorbent article as claimed in the present application which is directed to use of a sealing medium which increases the liquid-skin wetting angle to help avoid leaks. Second, the addition of Sivilich does not remedy the deficiencies of Roe. Rather, there is no motivation for one of skill in the art to combine Roe and Sivilich as suggested by the Office Action since the intention of Roe is to avoid the problem of slow transfer of liquid through a permeable topsheet to which a lotion is applied by use of a hydrophilic lotion. One of skill in the art would not have been motivated from the teachings of Roe and Sivilich to apply a hydrophilic lotion according to Roe on a liquid impermeable sheet to facilitate transfer of liquid through the sheet which is anyway impermeable. In view of these differences and those discussed above between the teachings of Roe and the claimed invention, Applicants respectfully request that the obviousness

¹Applicants note the Office Action actually refers to Schulte but believe the reference intended was Roe, U.S. Patent No. 5,607,760.

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rejection over Roe and Sivilich be withdrawn.

Applicants believe they have responded to all matters raised in the above referenced Office Action and that the application is now in condition for allowance. If the Examiner has any questions concerning this Application or this Reply and Amendment, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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Date: July 15, 2002

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